ORTHOPTERA

FAM. BLATTIDÆ

SUBFAM. EPILAMPRINÆ

by R. SHELFORD

WITH 2 COLOURED PLATES

THE Epilamprinæ form the fourth division in the classification of the Blattidæ.

Characters. — Antennæ setaceous, never plumose, very occasionally incrassated slightly. Pronotum variable in form. Tegmina coriaceous or corneous, fully developed or reduced. Wings fully developed, reduced or absent, mediastinal vein typically multiramose, costal veins irregular, ramose, ulnar vein with several incomplete rami. Supra-anal lamina : (♂) more or less quadrate with obtuse angles, (♀) sub-bilobate, produced. Femora armed beneath sparsely or strongly. Tarsi with distinct pulvilli, and in all but one genus with arolia. Ovo-viviparous or viviparous.

This sub-family presents almost as many difficulties to the systematist as the Phyllodromiinæ: Saussure attempted a revision of it in 1895 (*Rev. Suisse Zool.*), but in reality only indicated the lines along which revision should proceed. The most important characters for taxonomic purposes are found in the tarsal structure and as nearly all authors have omitted detailed notice of these characters in their specific diagnoses, no really satisfactory revision can be made until the vast majority of type-specimens are re-examined. The scheme of classification here adopted can only be tentative and extended knowledge of the group will doubtless lead to a shuffling of many species. Further subdivision of the genus *Homalopteryx* based on the form of the tegmina and tarsal structure and of the genera *Calolampra* and *Aüdreia* based on the tarsal structure is possible and, as I believe, desirable, but is postponed until more material for such subdivision comes to hand. *Epilampra* as a genus is as unwieldy as *Phyllodromia* and is even more difficult to deal with: the species of the latter genus do present readily recognisable characters useful for splitting the genus into well-marked sections and the difficulty of the systematist lies mainly in the fact that many authors fail to describe these characters. But in the case of

Epilampra not only are the diagnoses of the species for the most part very vague, but the species themselves are remarkably uniform and often can only be separated with difficulty. Brunner von Wattenwyl with his usual perspicacity has indicated one character which seems to be of great value in dividing *Epilampra* into two sections : 1° with the pronotum punctate, 2° with the pronotum smooth; if these two types of pronotal structure can be shewn to be correlated with definite tarsal differences, the commencement of a reliable subdivision of *Epilampra* will have been made. Kirby has separated off the Old World species of *Epilampra* to form a genus *Heterolampra*, but this genus is described so vaguely that the New World species fit into it as readily as the Old World species. In spite of a careful scrutiny of a considerable number of species I can find no characters whereon to base a division in accordance with geographical limits and for the present I leave *Epilampra* very much as it has been since 1895.

KEY TO THE GENERA

1. *Tarsi very short, posterior metatarsus much shorter than the succeeding joints.*
2. *Form convex.*
3. *Pronotum anteriorly produced covering the vertex of the head. Wings with normal venation* . . . . . 1. Genus Phoraspis, Serville.
3'. *Vertex of head exposed. Wings when present with abnormal venation.*
4. *Wings with triangular apical area* . . . . . 2. Genus Notolampra, Saussure.
4'. *Wings without triangular apical area.*
5. *Wings fully developed in both sexes. Anal vein of tegmina absent in both sexes* . . . . . 3. Genus Thorax, Saussure.
5'. *Wings reduced, rudimentary or absent in ♀. Anal vein of tegmina present in ♂* . . . . . 4. Genus Phlebonotus, Saussure.
2'. *Form depressed.*
3. *Tegmina and wings fully developed in both sexes.*
4. *Pronotum posteriorly sub-truncate. Tarsi fimbriate beneath* . . 5. Genus Pinaconota, Saussure.
4'. *Pronotum posteriorly produced. Tarsi not fimbriate beneath.* . 6. Genus Apsidopis, Saussure.
3'. *Tegmina truncate, quadrate. Wings absent* . . . . . 7. Genus Compsolampra, Saussure.
1'. *Tarsi longer, posterior metatarsus longer than, equal to, or very little shorter than the succeeding joints.*
2. *Posterior metatarsus entirely unarmed beneath.*
3. *Pronotum obtusely produced posteriorly* . . . . . 8. Genus Morphna, nov. gen.
3'. *Pronotum truncate posteriorly* . . . . . 10. Genus Homalopteryx, Brunner von [Wattenwyl (pars).
2'. *Posterior metatarsus spined beneath.*
3. *Posterior metatarsus armed with spines beneath only at the base, its pulvillus produced towards the base of the joint.*
4. *Sexes similar.*
5. *Tegmina and wings fully developed in both sexes* . . . . 10. Genus Homalopteryx, Brunner von [Wattenwyl (pars).
5'. *Tegmina and wings reduced to squamiform rudiments* . . . 11. Genus Opisthoplatia, Brunner von [Wattenwyl.
4'. *Sexes dissimilar* . . . . . 9. Genus Molytria, Stål.
3'. *Posterior metatarsus armed with spines beneath throughout the greater part of its length, its pulvillus apical.*

4. *Pronotum posteriorly truncate* . . . . . 12. Genus PHOETALIA, Stål.
4'. *Pronotum posteriorly more or less produced* (1).
5. *Tarsal arolia absent* . . . . . 13. Genus ATAXIGAMIA, Tepper.
5'. *Tarsal arolia present.*
6. *Sexes dissimilar.*
7. *Vertex of head covered by the pronotum* . . . . . 14. Genus RHICNODA, Brunner von Wat-
7'. *Vertex of head exposed.* [tenwyl.
8. *Tegmina : (♂) completely developed, (♀) lobiform* . . 15. Genus CALOLAMPRA, Saussure.
8'. *Tegmina : (♂) reduced, (♀) truncate or absent* . . . 16. Genus AÜDREIA, nov. gen.
6'. *Sexes similar.*
7. *Vertex of head covered by the pronotum.*
8. *Pronotum with sub-reflexed margin* . . . . . 17. Genus TRIBONOIDEA, Shelford.
8'. *Pronotum not as above.*
9. *Pulvilli large, second to fourth tarsal joints not spined* . 18. Genus PSEUDOPHORASPIS, Kirby.
9'. *Pulvilli small, second to fourth tarsal joints spined* . . 19. Genus HEDAIA, Saussure & Zehn-
7'. *Vertex of head exposed.* [tner.
8. *Wings truncate or acuminate at apex.*
9. *Wings truncate at apex* . . . . . 20. Genus RHABDOBLATTA, Kirby.
9'. *Wings acuminate at apex* . . . . . 21. Genus DEROCARDIA, Saussure.
8'. *Wings rounded at apex.*
9. *Femora strongly armed* . . . . . 22. Genus EPILAMPRA, Burmeister.
9'. *Femora sparsely armed* . . . . . 23. Genus EUSTEGASTA, Gerstäcker.

1. GENUS PHORASPIS, SERVILLE

Phoraspis, Serville, Ann. Sc. Nat. Vol. 22, p. 43 (1831); Hist. Ins. Orth. p. 124 (1839).
Cyrtilia, Stål, Bih. Svenska Akad. Vol. 2 (13), p. 11 (1874).

Characters. — Form convex. Antennæ setaceous. Pronotum rhomboidal, posteriorly arcuate, anteriorly covering vertex of head. Tegmina convex, semi-corneous, lanceolate, densely punctate, venation obscured, anal vein absent in both sexes, mediastinal vein on ventral surface incrassated. Wings coloured, ulnar vein sending incomplete rami to dividing vein and several complete rami to apex. Supra-anal lamina : (♂) transverse, (♀) quadrate, apex emarginate. Sub-genital lamina : (♂) broad, transverse with two short styles, (♀) produced, ample, margins sinuate, sub-carinate and with two lateral folds. Cerci short, acuminate. Legs slender, femora sparsely armed, tarsi short, pulvilli large, posterior metatarsus not spined beneath, shorter than succeeding joints.

Geographical distribution of species. — West Indies, Central and South America.

1. *P. pellucens*, Thunberg, Mém. Acad. Sc. St-Pétersb. Vol. 10, p. 276, pl. 14 (1826). Brazil, Surinam.
P. luctuosa, Saussure, Rev. Zool. (2), Vol. 20, p. 356 (1868).
2. *P. convexa*, Thunberg, Mém. Acad. Sc. St-Pétersb. Vol. 10, p. 279 (1826). Brazil. — **Pl. I, Figs. 1, 1a.**
P. heydeniana, Saussure, Rev. Zool. (2), Vol. 16, p. 309 (1864).
? *P. conspersa*, Burmeister, Handb. Ent. Vol. 2, p. 493 (1838).

(1) Except in the subapterous and apterous forms.

3. *P. cassidea*, Dalman, Anal. Ent. p. 87 (1823). Brazil.
4. *P. flavipes*, Blanchard, Ann. Soc. Ent. Fr. Vol. 6, p. 291, pl. 11, f. 2 (1837). Brazil.
5. *P. atomaria*. Blanchard, ibidem, p. 287, pl. 10, f. 2 (1837). Guadeloupe, Brazil.
   P. unicolor, Burmeister, Handb. Ent. Vol. 2, p. 493 (1838).
6. *P. luteola*, Blanchard, Ann. Soc. Ent. Fr. Vol. 6, p. 290, pl. 11, f. 1 (1837). Brazil.
7. *P. pantherina*, Blanchard, ibidem, p. 292, pl. 11, f. 3 (1837). Haiti, Brazil.
8. *P. fastuosa*, Blanchard, ibidem, p. 293, pl. 11, f. 4 (1837). Brazil.
   ? *P. albicollis*, Burmeister, Handb. Ent. Vol. 2, p. 493 (1838).
9. *P. conspersa*, Brullé, Hist. Nat. Ins. Vol. 9, p. 60, pl. 3, f. 4 (1835). Brazil.
10. *P. leucogramma*, Perty, Del. Anim. Art. p. 116, pl. 30, f. 3 (1830). Brazil.
11. *P. picta*, Drury, Ill. Exot. Ent. Vol. 3, pl. 50, f. 3 (1782). Brazil.
    Lampyris rufovittata, Schoenherr, Syn. Ins. Vol. 1 (3), p. 66 (1817).
12. *P. nigra*, Blanchard, Ann. Soc. Ent. Fr. Vol. 6, p. 297, pl. 11, f. 7 (1837). Brazil.
13. *P. modesta*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 161 (1865). Brazil.
14. *P. mexicana*, Saussure, Rev. Zool. (2), Vol. 14, p. 228 (1862). Mexico.
15. *P. bicolor*, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol. 2, p. 161 (1893). C. America (?), Brazil.

2. Genus NOTOLAMPRA, Saussure

Notolampra. Saussure, Rev. Zool. (2). Vol. 14, p. 227 (1862); Mém. Hist. Nat. Mexique, Blatt. p. 139 (1864).

Characters. — Form convex. Pronotum rhomboidal, anteriorly not covering vertex of head. Tegmina corneous, finely punctate, scarcely or not exceeding the apex of the abdomen, venation obscured, anal vein absent in the female. Wings fully developed in both sexes, a prominent apical triangle. Legs as in preceding genus. Supra-anal lamina (♀) triangularly produced, apex emarginate. Cerci short.

Geographical distribution of species. — Brazil, West Indies.

1. *N. gibba*, Thunberg, Mém. Acad. Sc. St-Pétersb. Vol. 10, p. 279 (1826). Brazil.
   — **Pl. 1, Fig 2.**
   Phoraspis cassidea, Burmeister, Handb. Ent. Vol. 2. p. 493 (1838).
   Epilampra lucida, Saussure, Rev. Zool. (2), Vol. 14, p. 227 (1862).
2. *N. punctata*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 23, p. 125 (1873). Brazil.
3. *N. antillarum*, Shelford, Ann. Mag. Nat. Hist. (7), Vol. 19. p. 38 (1907). Martinique.

3. Genus THORAX, Saussure

Thorax. Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 17, p. 141 (1863).
Paraphoraspis. Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 163 (1865).

Characters. — Form convex. Pronotum trapezoidal, posteriorly arcuate, anteriorly not covering vertex of head. Tegmina strongly convex, semicorneous, minutely punctate, anal vein not visible. Wings fully developed in both sexes, with very large posterior field, axillary vein giving off near its apex numerous rami; anterior field narrow, dividing vein strongly curved, ulnar vein giving off to it several incomplete rami. Legs as in preceding genus. Supra-anal lamina subtriangularly produced, apex emarginate. Cerci short.

Geographical distribution of species. — India, Ceylon, Australia.

1. *T. porcellana*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 17, p. 142, pl. 1, f. 9 (1863). Nilghiris, Ceylon, Victoria.
   Paraphoraspis notata, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 164, pl. 4, f. 18 (1865).
2. *T.* ? *castanea*, Tepper, Trans. Roy. Soc. S. Austral. Vol. 18, p. 173 (1894). Victoria.

4. Genus PHLEBONOTUS, Saussure

Phlebonotus. Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 17, p. 141 (1863).
Planes. Saussure, Mém. Hist. Nat. Mexique. Blatt. p. 141 (1864).

Characters. — Male moderately convex, rather elongate, female very convex. Pronotum punctate, trapezoidal, anteriorly not covering vertex of head, posteriorly sub-truncate. Tegmina : (♂) exceeding the apex of the abdomen, coriaceous, venation well-marked, anal vein impressed, seriately punctate, (♀) not or barely exceeding apex of abdomen, corneous, venation obscure, anal vein absent, seriately punctate Wings : (♂) as long as tegmina, anterior part rather narrow, vena dividens strongly curved, ulnar vein with numerous incomplete rami, posterior part ample, first axillary vein giving off near its apex numerous rami in a flabellate manner, (♀) reduced, rudimentary or absent, in the former case the posterior part is minute, the anterior part coriaceous. Femora very sparsely armed beneath. Tarsi short, metatarsi scarcely as long as the two succeeding joints, not spined beneath; all the pulvilli very large.

Geographical distribution of species. — India, Ceylon, Java.

1. *P. pallens*. Serville. Ann. Sc. Nat. Vol. 22, p. 43 (1831); Hist. Nat. Ins. Orth. p. 125. pl. 3, f. 4 (1839). — **Pl. I, Figs. 3, 4.** Bengal, Assam, Ceylon, Java.
   Epilampra cribrata, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 17. p. 144. pl. 1, f. 10 (1863).
   Epilampra intacta, Walker, Cat. Blatt. Brit Mus. p. 205 (1868).
2. *P. anomala*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 17, p. 141, pl. 1, f. 8 (1863). Madras, Pondichery, Nilghiris.

5. Genus PINACONOTA, Saussure

Pinaconota, Saussure, Rev. Suisse Zool. Vol. 3, pp. 333, 337 (1895).

Characters. — Form depressed. Pronotum trapezoidal, anteriorly and posteriorly sub-truncate, deeply punctate. Scutellum exposed. Tegmina and wings fully developed, extending beyond the apex of the abdomen. Femora moderately spined beneath. Tarsi very short, fimbriate and entirely unarmed beneath; posterior metatarsus equal in length to the two succeeding joints, its pulvillus large. Arolia very large.

Geographical distribution of species. — Brazil.

1. *P. bifasciata*, Saussure, Rev. Zool. (2), Vol. 14, p. 165 (1862); Miss. Sc. Mexique. Orth. p. 84, pl. 2, f. 44 (1870). Brazil.
   Ischnoptera sicca, Walker, Cat. Blatt. Brit. Mus. Suppl. p. 149 (1869).
2. *P. obliqua*, Walker, ibidem, p. 148 (1869). Brazil.
   P. obliqua, Shelford, Trans. Ent. Soc. Lond. p. 496, pl. 30, f. 5 (1906).

6. Genus APSIDOPIS, Saussure

Apsidopis, Saussure, Rev. Suisse Zool. Vol. 3, p. 338 (1895).

Characters. — Eyes very convex, not widely separated on vertex of head. Pronotum cucullate, anteriorly produced completely covering the head, posteriorly strongly produced. Tegmina and wings completely developed in both sexes, the latter sometimes with acuminate apex. Femora moderately armed. Tarsi short, completely unarmed beneath, sometimes fimbriate; posterior metatarsus equal in length to the two succeeding joints, all the pulvilli very large.

Geographical distribution of species. — Borneo.

1. *A. cyclops*, Saussure, Rev. Suisse Zool. Vol. 3, p. 338, pl. 9, f. 7 (1895). Borneo.
2. *A. wallacei*, Shelford, Ann. Mag. Nat. Hist. (7), Vol. 19, p. 38 (1907). Borneo.
3. *A. oxyptera*, Walker, Cat. Blatt. Brit. Mus. p. 199 (1868). — **Pl. I, Fig. 5.** Borneo.

7. Genus COMPSOLAMPRA, Saussure

Compsolampra. Saussure, Soc. Ent. Zurich, Vol. 8, p. 58 (1893).

Characters. — Pronotum covering vertex of head, posteriorly truncate. Tegmina quadrate, not extending beyond the first abominal tergite. Wings absent. Femora sparsely armed, front femora unarmed on front margin beneath. Tarsi very short; posterior metatarsi shorter than the three succeeding joints, entirely unarmed beneath, their pulvilli large, produced towards the base.

Geographical distribution of species. — Java, China.

1. *C. liturata*, Serville, Hist. Nat. Ins. Orth. p. 103 (1839). — **Pl. I, Fig. 6.** Java, China.
   Periplaneta insolita, Walker, Cat. Blatt. Brit. Mus. p. 146 (1868).
   Epilampra quadrata, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 23, p. 129 (1873).

8. Genus MORPHNA, nov. gen.

Molytria. Saussure, Rev. Suisse Zool. Vol. 3, p. 333 (1895).

Characters. — Form rather depressed. Vertex of head covered or almost covered by pronotum, which is trapezoidal, sub-cucullate and posteriorly produced obtusely. Tegmina and wings fully developed exceeding the apex of the abdomen. Supra-anal lamina of typical Epilamprine shape. Cerci moderately long. Femora moderately armed beneath. Posterior metatarsus equal in length to succeeding joints; all the joints entirely unarmed beneath, their pulvilli large, pulvillus of metatarsus apical but produced towards the base of the joint.

Geographical distribution of species. — India to Malay Archipelago.

1. *M. amplipennis*, Walker, Cat. Blatt. Brit. Mus. p. 196 (1868). Silhet.
2. *M. plana*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 183 (1865). India, Ceylon.
   Epilampra punctifera, Walker, Cat. Blatt. Brit Mus. p. 198 (1868).
   Homalopteryx biplagiata, Bolivar, Ann. Soc. Ent. Fr. Vol. 66, p. 296 (1897).
3. *M. maculata*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 179 (1865). — **Pl. I, Figs. 7, 7a.** Singapore, Borneo.
   Epilampra polyspila, Walker, Cat. Blatt. Brit. Mus. p. 197 (1868).
   Molytria shelfordi, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 275 (1903).

4. *M. badia*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 189 (1865). — Singapore, Sumatra, Borneo, Java.
Epilampra dotata, Walker, Cat. Blatt. Brit. Mus. Suppl. p. 130 (1869).
Epilampra ramifera, Walker, ibidem, p. 132 (1869).

9. Genus MOLYTRIA, Stål

Molytria. Stål. Bih. Svensk. Akad. Vol. 2 (13). p. 12 (1875).

Characters. — Form depressed. Pronotum trapezoidal, anteriorly not covering vertex of head, posteriorly very obtusely produced. Tegmina : (♂) exceeding the apex of the abdomen or falling little short of it, (♀) sub-quadrate not extending beyond the second abdominal tergite. Wings : (♂) as long as tegmina, (♀) minute, sub-squamiform. Posterior metatarsi as long as the succeeding joints, armed at its base with a few spines in a double row, its pulvillus produced towards the base of the joint: remaining joints with large pulvilli entirely unarmed beneath.

Geographical distribution of species. — Australia.

1. *M. inquinata*, Stål, Freg. Eugen. Resa. Ins. p. 309 (1858). — **Pl. I, Fig. 8.** — Australia.
Epilampra nudiventris, Saussure, Rev. Zool. (2), Vol. 16, p. 321 (1864).
Epilampra notabilis, Walker, Cat. Blatt. Brit. Mus. p. 202 (1868).
2. **M. perplexa, nov. sp.** (1). — Victoria.

10. Genus HOMALOPTERYX, Brunner von Wattenwyl

Homalopteryx. Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 195 (1865).

Characters. — Form depressed. Pronotum anteriorly parabolic, completely covering or just failing to cover the vertex of the head, posteriorly truncate or sub-truncate. Tegmina and wings fully developed or reduced. Femora sparsely armed. Posterior metatarsi shorter than, or equal to, the remaining joints, armed beneath with a few spines at the base uniseriately or biseriately arranged, occasionally unarmed beneath.

Geographical distribution of species. — India to Malay Archipelago, Papuasia, Australia (?). S. America.

1. *H. patinifera*, Bolivar, Ann. Soc. Ent. Fr. Vol. 66, p. 295 (1897). — Trichinopoly.
2. *H. decolyi*, Bolivar, ibidem, p. 294 (1897). — Trichinopoly.
3. *H. cariniceps*, Bolivar, ibidem, p. 296 (1897). — Trichinopoly.
4. *H. auriculata*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 181 (1865). — Bengal.
5. **H maindroni, nov. sp.** (2). — **Pl. I, Fig. 9.** — Malabar coast.

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(1) **M. perplexa, nov. sp.** — *Male.* — Head castaneous, vertex piceous, antennæ fuscous. Pronotum piceous, laterally margined with hyaline mottled with castaneous. Tegmina extending to ante-penultimate abdomial tergite, castaneous, costal margins testaceous, mediastinal vein piceous. Wings a little shorter than tegmina. Abdominal tergites slightly plicated, a pair of spiracular tubes projecting from beneath the seventh abdominal tergite. Supra-anal lamina trapezoidal, barely exceeded by the sub-genital lamina (cerci and tarsi mutilated). Length 27 mm.: length of tegmina 19 mm.: pronotum 7 mm. × 6.8 mm. Victoria, Gippsland (Melbourne Museum).

(2) **H. maindroni, nov. sp** - *Female.* — Rufo-testaceous. Vertex of head with fuscous markings. Pronotum anteriorly barely covering vertex of head, posteriorly sub-truncate, deeply punctate, disc with two oblique impressions. Tegmina broad, not extending beyond the penultimate abdominal tergite, seriate-punctate. Wings minute, squamiform. Abdomen with tergites posteriorly plicated, beneath testaceous, sprinkled with castaneous; supra-anal lamina produced, sub-quadrate, apex very slightly emarginate. Cerci short. Front femora with three spines on anterior margin beneath, remaining femora very sparsely armed: formula of apical spines 0/1, 1 1, 0 0. Posterior metatarsi equal in length to the three succeeding joints, entirely unarmed beneath, its pulvillus apical. Total length 20 mm.: length of tegmina 17 mm : pronotum 8.5 mm. × 13 mm. Mahé, Malabar (Maindron coll.) (Paris Museum)

6. *H. templetonii*, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 275 (1903). Ceylon.
7. *H. adusta*, Walker, Cat. Blatt. Brit. Mus. Suppl. p. 132 (1869). Borneo.
H. adusta, Shelford, Trans. Ent. Soc. Lond. p. 497, pl. 30, f. 6 (1906).
8. *H. major*, Saussure, Rev. Suisse Zool. Vol. 3, p. 342 (1895). Java.
9. *H. macassariensis*, Haan, in Temminck, Verhandel. Orth. p. 51, pl. 18, f. 7 (1842). — **Pl. 1, Fig. 10.** Philippines. Celebes. Amboina. Ceram.
Epilampra basifera, Walker, Cat. Blatt. Brit. Mus. Suppl. p. 132 (1869).
Epilampra strigifrons, Walker. ibidem, p 132 (1869).
10. *H. pelewensis*, Saussure, Rev. Suisse Zool. Vol. 3, p. 342 (1895). Pelew Islands.
11. *H. intermedia*, Bolivar, Act. Soc. Esp. Hist. Nat. p. 137 (1898). « Papua ».
12. *H. capucina*, Brunner von Wattenwyl. Nouv. Syst. des Blatt. p. 196, pl. 5, f. 21 (1865). Venezuela, Columbia.

Doubtful species :

13. *H. geochroma*, Walker, Cat. Blatt. Brit. Mus. p. 158 (1868). Habitat (?).

11. Genus OPISTHOPLATIA, Brunner von Wattenwyl

Opisthoplatia, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 198 (1865).

Characters. — Depressed, oblong. Pronotum anteriorly parabolic, covering vertex of head, posteriorly truncate. Tegmina and wings in both sexes reduced to squamiform lobes. Cerci very short. Sub-genital lamina (♂) with two styles. Posterior metatarsus unarmed beneath and with a large pulvillus prolonged towards the base of the joint, as long as the three succeeding joints.

Geographical distribution of species. — China, India, Brazil (?).

1. *O. orientalis*, Burmeister, Handb. Ent. Vol. 2, p. 482 (1838). China, India, Brazil (?).
Nympha aptera (part), Stoll, Spectres, Blatt. p. 8, pl. 5*d*, f. 25 (1813).
Polyzosteria pictetiana, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 17, p. 131, pl. 1, f. 1 (1863).

12. Genus PHÆTALIA, Stål

Phætalia, Stål, Bih. Svensk. Akad. Vol. 2 (13), p. 17 (1875).

Characters. — Form depressed. Pronotum trapezoidal, anteriorly not covering the vertex of the head, posteriorly truncate. Scutellum exposed. Tegmina and wings similar in both sexes, not or barely exceeding the apex of the abdomen. Femora sparsely armed, front femora with a few spines on anterior margin beneath. Tarsi moderately long, posterior metatarsi equal in length to succeeding joints, biseriately spined beneath, remaining joints not armed.

Geographical distribution of species. — Atlantic Islands, Mascarene Islands, South America, West Indies.

1. *P. laevigata*, Beauvois, Ins. Afr. Amér. Orth. p. 228, pl. 2*c*, f. 4 (1805). Teneriffe, Haiti, Cuba, Brazil.
Nauphoeta pallida, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 286 (1865).
Nauphoeta marginalis, Walker, Cat. Blatt. Brit. Mus. p. 41 (1868).
2. *P. circumvagans*, Burmeister, Handb. Ent. Vol. 2, p. 508 (1838). Madeira, Teneriffe, Mascarene Islands, Cuba, St. Domingo, Brazil.
P. marginicollis, Stål, Freg. Eugen. Resa Ins. p. 307 (1858).
P. laevigata, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 285, pl. 7, f. 33 (1865).

13. Genus ATAXIGAMIA, Tepper

Ataxigamia. Tepper, Trans. Roy. Soc. S. Austral. Vol. 17, p. 123 (1893).

Characters. — Eyes wide apart. Pronotum anteriorly truncate, freely exposing vertex of head, posteriorly produced obtusely, disc rugose with impressions, margins slightly reflected. Scutellum exposed. Tegmina and wings fully developed, exceeding the apex of the abdomen considerably; anal field of tegmina narrow, lanceolate. Supra-anal lamina (♂) sub-quadrate, apex not emarginate, subgenital lamina trapezoidal, symmetrical, notched in the middle of the posterior margin; styles small. Cerci short. Legs with more or less abundant pubescence. Femora sparsely armed. Tarsi moderately long: posterior metatarsus equal to the succeeding joints in length, biseriately spined beneath, its pulvillus small, apical; the remaining joints spined. Arolia absent.

Geographical distribution of species. — Australia.

1. *A. tatei*, Tepper, Trans. Roy. Soc. S. Austral. Vol. 17, p. 123 (1893). S. Australia.
2. **A. bicolor, nov. sp.** (1). — **Pl. 1, Fig. 11.** S. Australia.

14. Genus RHICNODA, Brunner von Wattenwyl

Rhicnoda. Brunner von Wattenwyl, Ann. Mus. Stor. Nat. Genova. Vol. 33, p. 30 (1893).

Characters. — Form depressed. Pronotum anteriorly parabolic, covering vertex of head, in ♂ posteriorly produced, in ♀ truncate. Tegmina and wings fully developed in ♂, tegmina reduced to squamiform lobes or absent and wings absent in ♀. Abdomen (♀) with a pair of spiracular tubes projecting on either side from beneath the seventh tergite. Femora moderately spined. Tarsi long, posterior metatarsi biseriately spined beneath, longer than the succeeding joints, pulvilli apical, remaining joints with spines surrounding their pulvilli.

Geographical distribution of species. — Tropical Asia, Japan, Australia, West Indies, Central America.

1. *R. rugosa*, Brunner von Wattenwyl, Ann. Mus. Stor. Nat. Genova, Vol. 33, p. 31, pl. 1, f. 2 (1893). Burma, Borneo, Java, Halmahera.
2. *R. terranea*, Walker, Cat. Blatt. Brit. Mus. p. 163 (1868). Ceylon.
3. *R. plicata*, Navás, Bol. Soc. Aragon, Vol. 3, p. 130 (1904). Himalayas.
4. *R. desidiosa*, Rehn, Proc. U. S. Nat. Mus. Vol. 27, p. 552 (1904). Siam.
5. *R. spinulosa*, Brunner von Wattenwyl, Ann. Mus. Stor. Nat. Genova, Vol. 33, p. 31 (1893). Java.
6. *R. natatrix*, Shelford, The Zoologist, p. 226 (1907). — **Pl. 2, Figs. 1.** Borneo.
7. *R. obscurifrons*, Stål, Oefv. Vet.-Akad. Förh. Vol. 34 (10), p. 34 (1877). Philippines.
8. *R. maculata*, Shiraki, Ann. Zool. Japon. Vol. 6, p. 32, pl. 2, f. 4 (1906). Japan.
9. *R. laminata*, Brunner von Wattenwyl, Proc. Zool. Soc. Lond. p. 294, pl. 15, f. 4 (1892). West Indies.
10. *R. reflexa*, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol. 1, p. 68, pl. 4, f. 35 (1893). Nicaragua.

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(1) **A. bicolor, nov. sp.** — *Male*. — Bright rufo-testaceous, tegmina and wings castaneous. Head with shallow punctures. Pronotum hexagonal with rounded angles, disc sub-rugose with two oblique impressions and some shallow punctures. Tegmina with mediastinal field and veins at base rufous. Posterior margins of abdominal sternites with one row of small tubercles. Legs with very sparse erect pubescence. Front femora with five spines on anterior margin, three on posterior margin, beneath, remaining femora rather strongly armed. Pulvilli of tarsal joints strongly spined, the apical tarsal joint biseriately spined beneath. Total length 46 mm.; length of body 32 mm.; length of tegmina 38 mm.; pronotum 10 mm × 14.2 mm. South Australia, Tennant's Creek (Oxford Museum).

15. Genus CALOLAMPRA, Saussure

Calolampra. Saussure, Soc. Ent. Zurich, Vol. 8, p. 57 (1893); Rev. Suisse Zool. Vol. 3, p. 344 (1895).

Characters. — Vertex of head in ♂ freely exposed, in ♀ sometimes covered. Pronotum : (♂) posteriorly produced obtusely, (♀) truncate. Tegmina : (♂) long, considerably exceeding the apex of the abdomen, (♀) lobiform. Wings : (♂) as long as the tegmina, (♀) absent. Abdomen in ♀ very broad. Femora rather sparsely armed beneath. Tarsi long, posterior metatarsi longer than the succeeding joints spined beneath, second joint not spined with large pulvillus, or with spines round the pulvillus, or with spines beneath and apical pulvillus.

Geographical distribution of species. — Indian Empire, Siam, Australia, S. and E. Africa, Central America (?).

1. *C. characterosa*, Walker, Cat. Blatt. Brit. Mus. p. 209 (1868).	Bengal.
2. *C. marginata*, Brunner von Wattenwyl, Ann. Mus. Stor. Nat. Genova, Vol. 33, p. 28, pl. 1, f. 9 (1893).	Burma.
3. *C. laevis*, Brunner von Wattenwyl, ibidem, p. 28 (1893).	Tenasserim.
4. *C. pedisequa*, Rehn, Proc. U. S. Nat. Mus. Vol. 27, p. 547 (1904).	Siam.
5. *C. irrorata*, Fabricius, Syst. Ent p. 272 (1775).	Australia.
Epilampra gracilis, Brunner von Wattenwyl, Nouv. Syst des Blatt. p. 170, pl. 4, f. 20 (1865).	
Epilampra atomifera, Walker, Cat. Blatt. Brit. Mus. p. 69 (1868).	
Polyzosteria propria, Walker, ibidem, p. 161 (1868).	
6. *C. fornicata*, Saussure, Rev. Zool. (2), Vol. 16, p. 320 (1864).	Australia.
7. *C. depolita*, Brancsik, Jahresb. Ver. Trencsin. Cömit. Vol. 19-20, p. 57 (1897).	Australia.
8. *C. aspera*, Tepper, Trans. Roy. Soc. S. Austral. Vol. 17, p. 62 (1893).	S. and W. Australia.
9. *C. fraserensis*, Tepper, ibidem, p. 59 (1893).	S. and W. Australia.
10. *C. obscura*, Tepper, ibidem, p. 64 (1893).	Australia.
11. *C. paula*, Tepper, ibidem, p. 60 (1893).	S. Australia.
12. *C. tepperi*, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 275 (1903).	Australia.
Epilampra propria, Tepper, Trans. Roy. Soc. S. Austral. Vol. 17, p. 64 (1893).	
13. *C. marginalis*, Walker, Cat. Blatt. Brit. Mus. p. 119 (1868).	W. Australia.
14. *C. pardalina*, Walker, ibidem, p. 68 (1868).	S. Africa.
15. *C. aptera*, Schulthess, Ann. Mus. Stor. Nat. Genova, Vol. 39, p. 169, pl. 2, f. 2 (1898).	Kilimandjaro, German East Africa.
16. *C. bispinosa*, Saussure, Soc. Ent. Zurich, Vol. 8, p. 58 (1893).	New Granada, Panama.
C. bispinosa, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol. 1, p. 67, pl. 3, f. 26 (1893).	
17. *C. brevitarsis*, Saussure, Soc. Ent. Zurich, Vol. 8, p. 38 (1893).	New Granada, Panama.
C. brevitarsis, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol. 1, p. 67, pl. 4, f. 39 (1893).	
18. *C. atra*, Tepper, Trans. Roy. Soc. S. Austral. Vol. 17, p. 65 (1893).	S. Australia.
19. *C. tatei*(1), Tepper, ibidem, Vol. 18, p. 174 (1894).	S. Australia, Northern ter-
20. *C. antica*, Walker (larva), Cat. Blatt. Brit. Mus. p. 161 (1868).	Habitat (?). [ritory.
21. *C. dimorpha*, Shiraki, Ann. Zool. Japon. Vol. 6, Pt. 1, p. 22, pl. 2, f. 6 (1906).	Japan.
Polyzosteria congrua, Walker, Cat. Blatt. Brit. Mus. p. 165 (1868), from Congo, included by Kirby in the genus *Calolampra*, is a species of *Temnopteryx*.	

(1) This species is possibly not an Epilamprine

16. Genus AÜDREIA, nov. gen.

Characters. — Differs from *Calolampra* by the reduced tegmina of the ♂, which fail to reach the apex of the abdomen and by the tegmina of the ♀, which are sub-quadrate or absent.

Geographical distribution of species. — India, Australia, Central and South America, West Indies.

1. **A. pulchra, nov. sp.** (1). — **Pl. 2, Figs. 2, 2a.**	Nilghiris.
2. *A. truncata*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 178 (1865).	New S. Wales
3. *A. biolleyi*, Saussure, Rev. Suisse Zool. Vol. 3, p. 347, pl. 9, f. 8 (1895).	C. America.
4. *A. carinulata*, Saussure, ibidem, p. 347, pl. 9, f. 9 (1895).	C. America.
5. *A. cicatricosa*, Rehn, Trans. Amer. Ent. Soc. Vol. 29, p. 275 (1903).	Costa Rica.
6. *A. hamiltoni*, Rehn, ibidem, p. 274 (1903).	Cuba.
7. *A. heusseriana*, Saussure, Rev. Zool. (2), Vol. 16, p. 321 (1864); Mém. Hist. Nat. Mexique, Blatt, p. 134, pl. 2, f. 24 (1864).	Uruguay.
8. **A. catharina, nov. sp.** (2).	Brazil.

17. Genus TRIBONOIDEA, Shelford

Tribonoidea, Shelford, Jahresb. Ver. Naturk. Wiesbaden, Vol. 61, p. 29 (1908).

Characters. — Pronotum with disc cucullate, anteriorly more arcuate than posteriorly, covering vertex of head and with slightly reflected margin. Tegmina and wings considerably exceeding the apex of the abdomen. Mediastinal vein of tegmina laminate beneath. Posterior portion of wings relatively small. Supra-anal lamina (♂) bilobed, exceeding the sub-genital lamina. Two genital styles. Cerci very short. Femora with their posterior margins beneath unarmed, the anterior margins sparsely armed. Tarsi elongate, posterior metatarsus biseriately spined beneath, pulvilli minute.

Geographical distribution of species. — Peru.

1. *T. oniscosoma*, Saussure Rev. Suisse Zool. Vol. 3, p. 339 (1895).	Peru.
T. seydi, Shelford, Jahresb. Ver. Naturk. Wiesbaden, Vol. 61, p. 30 (1908).	

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(1) **A. pulchra, nov. sp.** — *Male.* — Head piceous, vertex with a testaceous line, genæ and mouth parts testaceous. Pronotum with the disc fusco-castaneous, the anterior and lateral margins testaceous, rufo-punctate. Tegmina short, not reaching beyond the fifth abdominal tergite, venation well-marked closely reticulated, mediastinal area punctate, testaceous, rest of tegmina castaneous with fuscous spots, mediastinal and radial veins at base piceous. Wings reduced to corneous scales. Abdomen above piceous, laterally testaceous and fusco-punctate, supra-anal lamina sub-quadrate, apex cleft. Abdomen beneath piceous, sub-genital lamina slightly asymetrical, margined with testaceous, with two slender styles. Cerci moderate. Legs castaneous, front femora with four or five spines on anterior margin beneath; formula of apical spines 1/0, 1 0, 1 0, no genicular spine on front femora. Posterior tarsi very long, pulvilli minute, apical; metatarsi, second and third joints spined beneath. Arolia minute.

Female. — Larger. Entirely apterous. Pronotum posteriorly truncate; thorax margined laterally with fusco-punctate testaceous. Abdomen above fusco-marmorate, beneath piceous. Cerci very short, trigonal, nitid above with a testaceous line, hirsute below. Supra-anal lamina sub quadrate, apex faintly emarginate. Length: ♂ 15 mm., ♀ 10 mm.; length of tegmina 7-9 mm.; pronotum: ♂ 5 mm. × 5.5 mm., ♀ 5 mm. × 7.2 mm. Nilghiris, Coonoor (Maindron, Paris Museum).

(2) **A. catharina, nov. sp.** — *Male.* — Rufo-testaceous, a castaneous macula on the frons. Pronotum posteriorly produced obtusely, fusco-punctate, a castaneous lyrate marking on the disc. Tegmina not extending beyond the fourth abdominal tergite, with a few castaneous points, venation well-marked, not reticulated. Wings slightly shorter than tegmina, posterior part reduced, venation reticulated. Abdomen above fusco-marmorate, beneath castaneous, supra-anal lamina shortly trigonal, exceeded by the sub-genital lamina which is asymmetrical and produced, deeply grooved on the right side for the reception of the solitary style. Cerci piceous. Femora and coxæ rufo-testaceous, tibiæ castaneous. Femora strongly armed, front femora on anterior margin beneath with five or six spines succeeded distally by piliform setæ, formula of apical spines 2 1, 1 1, 1/0, no genicular spines on front femora. Tarsi rather short, pulvilli large, posterior metatarsi barely equal in length to the succeeding joints, the pulvilli of the second and third joints occupying the entire extent of the joints, with two spines on each side.

Female. — Similar, but pronotum less produced posteriorly, tegmina quadrate, not extending beyond the first abdominal tergite; wings reduced to corneous scales, without venation; supra-anal lamina produced with rounded angles, apex not emarginate. Length: (♂) 10 mm., (♀) 22 mm.; length of tegmina: (♂) 10 mm., (♀) 6 mm.; pronotum 6-7 mm. × 7.8-9 mm. Brazil, Santa Catharina (Oxford Museum).

18. Genus PSEUDOPHORASPIS, Kirby

Pseudophoraspis. Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 275 (1903).

Characters. — Eyes rather close together. Pronotum completely covering vertex of head, subcucullate, posteriorly obtusely produced. Tegmina and wings fully developed in both sexes, their apices rounded or slightly truncate. Femora moderately armed beneath. Tarsi long, posterior metatarsi longer than the succeeding joints, biseriately spined beneath, its pulvillus apical, remaining joints with large pulvilli, entirely unarmed.

Geographical distribution of species. — Tonkin, Malay Peninsula, Sunda Islands, Philippines.

1. **P. fruhstorferi, nov. sp.** (1). — **Pl. 2, Fig. 3.** — Tonkin.
2. *P. nebulosa*, Burmeister, Handb. Ent. Vol. 2, p. 505 (1838). — **Pl. 2, Fig. 4.** — Malay Peninsula, Borneo, Sumatra, Java.
   Blatta jaspidea, Serville, Hist. Nat. Ins. Orth. p. 88 (1839).
   Epilampra congrua, Walker, Cat. Blatt. Brit. Mus. p. 199 (1868).
   Epilampra scita, Walker, ibidem, p. 200 (1868).
   Epilampra conformis, Walker, ibidem, p. 200 (1868).
   Epilampra deplanata, Walker, ibidem, p. 201 (1868).
3. *P. miranda*, Shelford, Trans. Ent. Soc. Lond. p. 268 (1906). — Borneo.
4. *P. vasta*, Walker, Cat. Blatt. Brit. Mus p. 195 (1868). — Philippines.
   Epilampra imperatoria, Stål. Oefv. Vet.-Akad. Förh. Vol. 34, nº 10, p. 36 (1877).

19. Genus HEDAIA, Saussure & Zehntner

Hedaia, Saussure & Zehntner, in Grandidier, Hist. Nat. Madag. Orth. Vol. 1, pp. 56, 66 (1895).

Characters. — Pronotum pentagonal, anterior border moderately arched, almost covering vertex of head, sides truncated, posteriorly strongly produced. Tegmina and wings fully developed, the former membranous, the latter with apex rounded or slightly angulate. Femora very sparsely armed, apical spines small. Tarsi long, posterior metatarsus biseriately spined beneath, second joint also biseriately spined beneath and with apical pulvillus.

Geographical distribution of species. — Madagascar.

1. *H. venusta*, Saussure & Zehntner, Hist. Nat. Madag. Orth. Vol. 1, p. 67, pl. 4, f. 43 (1895). — Madagascar.

20. Genus RHABDOBLATTA, Kirby

Rhabdoblatta, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 276 (1903).

Characters. — Vertex of head freely exposed. Pronotum with its greatest width behind the middle, posteriorly strongly produced. Tegmina and wings fully developed, the latter (2) truncate at the

(1) **P. fruhstorferi, nov. sp.** — Closely allied to *P. nebulosa*, Burmeister, but the eyes much further apart; less convex; pronotum and tegmina less nitid; mediastinal vein of tegmina shining luteous; supra-anal lamina (♂) triangularly produced, apex not emarginate. Total length: (♂) 41 mm., (♀) 39 mm.; length of body: (♂) 33.2 mm., (♀) 34.5 mm.; length of tegmina: (♂) 35 mm., (♀) 33.5 mm.; pronotum: (♂) 9 mm. × 12 mm., (♀) 10 mm. × 14 3 mm. Tonkin, Montes Mauson (Fruhstorfer) (Oxford Mus.).

(2) Except in *R. versuriana*, Saussure.

apex, the former sometimes truncate at the apex, sometimes rounded. Femora moderately armed. Tarsi long, posterior metatarsus biseriately spined beneath, second and third joints with no spines at their bases, pulvilli large with spines at the sides.

Geographical distribution of species. — India to Malay Archipelago. Brazil.

1. *R. praecipua*, Walker, Cat. Blatt. Brit. Mus. p. 196 (1868). — Pl. 2, Figs. 5, 5a. Ceylon.
2. *R. horologica*, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 280 (1903). Khasia Hills
3. *R. imperatrix*, Kirby, ibidem, p. 274 (1903). Tonkin.
4. *R. regina*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 20, p. 270 (1869). Cochin China.
5. *R. abdominalis*, Kirby, ibidem, p. 279 (1903). Tonkin.
6. *R. structilis*, Rehn, Bull. Amer. Mus. Nat. Hist. Vol. 26, p. 178 (1909). Sumatra.
7. *R. pfeifferae*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 188 (1865). Borneo.
8. *R. parvicollis*, Walker, Cat. Blatt. Brit. Mus. Suppl. p. 133 (1869). Borneo.
9. *R. buqueti*, Serville, Hist. Nat. Ins. Orth. p. 93 (1839). Java.
10. *R. javanica*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 20, p. 269 (1869). Java.
11. *R. procera*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 192 (1865). Java.
    Epilampra borrei, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 23, p. 127, pl. 10, f. 44 (1873).
12. *R. pudica*, Stal, Oefv. Vet.-Akad. Förh. Vol. 34, n. 10, p. 35 (1877). Philippines.
13. *R. truncata*, Brunner von Wattenwyl, Abh. Senckenb. Ges. Frankf. Vol. 24, p. 207 (1898). Celebes.
14. *R. concinnula*, Walker, Cat. Blatt. Brit. Mus. Suppl. p. 134 (1869). Timor.
15. *R. yersiniana*, Saussure, Rev. Zool. (2), Vol. 16, p. 323 (1864). Brazil.
    Epilampra superba, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 191 (1865).

21. Genus DEROCARDIA, Saussure

Derocardia. Saussure, Rev. Suisse Zool. Vol. 3, p. 350 (1895).

Characters. — Similar to *Rhabdoblatta*, but apex of wings acutely pointed.

Geographical distribution of species. — Amboina.

1. *D. acutipennis*, Saussure, Rev. Suisse Zool. Vol. 3, p. 353, pl. 9, f. 11 (1895). Amboina.

22. Genus EPILAMPRA, Burmeister

Epilampra. Burmeister, Handb. Ent. Vol. 2, p. 504 (1838).
Pœciloderrhis. Stål, Bih. Svensk. Vet.-Akad. Handl. Vol. 2, n. 13, p. 12 (1874).
Heterolampra. Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 276 (1903).

Characters. — Head with vertex exposed. Pronotum obtusely produced posteriorly. Tegmina and wings fully developed in both sexes, only rarely shorter than the body. Supra-anal lamina: (♂) sub-quadrate with obtuse angles, (♀) sub-bilobate, produced. Femora strongly armed. Tarsi long; posterior metatarsi exceeding the succeeding joints in length, biseriately spined throughout the greater part of their length, their pulvilli apical; second to fourth joints typically with small pulvilli and biseriately spined beneath.

Geographical distribution of species. — St. Helena, Asia, Africa, Australia, Central and South America, West Indies.

Palæarctic species :

1. *E. signatura*, Walker, Cat. Derm. Salt. Brit. Mus. Vol. 5, Suppl. Blatt. p. 13 (1871).	St. Helena.
2. *E. guttigera*, Shiraki, Ann. Zool. Japon. Vol. 6, Pt. 1, p. 21, pl. 2, f. 7 (1906).	Japan.

Ethiopian species :

3. *E. lyncea*, Gerstäcker, Mitt. Ver. Neuvorpomm. u. Rügen, Vol. 14, p. 53 (1883).	Cameroons.
4. *E. erubescens*, Gerstäcker, ibidem, p. 54 (1883).	Cameroons.
5. *E. camerunensis*, Borg, Bih. Svensk. Vet.-Akad. Vol. 28, Afd. 4, n. 10, p. 8, pl. 1, f. 3 (1904).	Cameroons.
6. *E. electa*, Borg, ibidem, p. 10, pl. 1, f. 4 (1904).	Cameroons.
7. *E. infinita*, Borg, ibidem, p. 11, pl. 1, f. 1 (1904).	Cameroons.
8. *E. sjöstedti*, Borg, ibidem, p. 12, pl. 1, f. 5 (1904).	Cameroons.
9. *E. borgi* (nom. nov.). *E. pallida*, Borg, Bih. Svensk. Vet.-Akad. Vol 28, Afd. 4, n. 10, p. 13, pl. 1, f. 6 (1904).	Cameroons.
10. *E. minuta*, Borg, ibidem, p. 14, pl. 1, f. 4 (1904).	Cameroons.
11. *E. stipata*, Walker, Cat. Blatt. Brit Mus. p. 208 (1868).	Sierra Leone.
12. *E. conspicua*, Walker, ibidem, p. 67 (1868).	Lake N'gami.
13. *E. hybrida*, Saussure, Rev. Suisse Zool. Vol. 3, p. 358 (1895).	Lake N'gami.
14. *E. punctipennis*, Saussure, ibidem, p. 356, pl. 9, f. 12 (1895).	Zanzibar.
15. *E. angulata*, Saussure, Soc. Ent. Zurich, Vol. 6, p. 25 (1891). *E. angulata*, Saussure & Zehntner, in Grandidier, Hist. Nat. Madag. Orth. Vol. 1, p. 58 pl. 2, f. 21 (1895).	Madagascar.
16. *E. trilobata*, Saussure, Soc. Ent. Zurich, Vol. 6, p. 25 (1891). *E. trilobata*, Saussure & Zehntner, in Grandidier, Hist. Nat. Madag. Orth. Vol. 1, p. 60, pl. 2, f. 24 (1895).	Madagascar.
17. *E. punctulata*, Saussure, Soc. Ent. Zurich, Vol. 6, p. 25 (1891). *E. punctulata*, Saussure & Zehntner, in Grandidier, Hist. Nat. Madag. Orth. Vol. 1, p. 63, pl. 2, f. 22, 23 (1875).	Madagascar.
18. *E. malagassa*, Saussure & Zehntner, ibidem, p. 65, pl. 2, f. 25 (1895).	Madagascar.
19. *E. cincta*, Brunner von Wattenwyl, Nouv. Syst des Blatt. p. 172 (1865).	Africa (?).

Oriental species :

20. *E. lurida*, Burmeister, Handb. Ent. Vol. 2, p. 505 (1838). *Blatta cribricollis*, Serville, Hist. Nat. Ins. Orth. p. 93 (1839).	India, Java, Borneo, Celebes.
21. *E. sculpturata*, Bolivar, Ann. Soc. Ent. Fr. p. 297, pl. 10, f. 8 (1897).	Trichinopoly.
22. *E. lineaticollis*, Bolivar, ibidem, p. 298 (1897).	Trichinopoly.
23. *E. punctata*, Brunner von Wattenwyl Nouv. Syst. des Blatt. p. 173 (1865).	Ceylon.
24. *E. subsparsa*, Walker, Cat. Blatt. Brit. Mus. p. 205 (1868).	Ceylon.
25. *E. excelsa*, Navás, Bol. Soc. Aragon, Vol. 3, p. 131 (1904).	Himalayas.
26. *E. imitans*, Brunner von Wattenwyl, Ann. Mus. Stor. Nat. Genova, Vol. 33, p. 29, pl. 1, f. 10 (1893).	Tenasserim.
27. *E. marmorata*, Brunner von Wattenwyl, ibidem, p. 29 (1893).	Burma.
28. *E. annandalei*, Shelford, Rec. Indian Mus. Vol. 3, p. 127 (1909).	Lower Burma.
29. *E. olivacea*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 20, p. 267 (1869). *E. immaculata*, Kirby, Ann. Mag. Nat. Hist. (7). Vol. 12, p. 279 (1903).	Cochin China, Tonkin.
30. *E. monticola*, Kirby, ibidem, p. 277 (1903).	Tonkin.
31. *E. pallida*, Kirby, ibidem, p. 278 (1903).	Tonkin.
32. *E. trongana*, Rehn, Proc. U. S. Nat. Mus. Vol. 27, p. 548 (1904).	Lower Siam.
33. *E. moloch*, Rehn, ibidem, p. 550 (1904).	Lower Siam.

34. *E. saussurei*, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 277 (1903). China.
E. puncticollis, Saussure, Rev. Suisse Zool. Vol. 3, p. 359 (1895).
35. *E. alligata*, Walker, Cat. Blatt. Brit. Mus. p. 71 (1868). Hong Kong.
E. munda, Walker, ibidem, p. 203 (1868).
E. isochroma, Walker, ibidem, p. 204 (1868).
36. *E. sinensis*, Walker, ibidem, p. 197 (1868). Hong Kong.
37. *E. inconspicua*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 186 (1865). Philippines.
38. *E. insueta*, Walker, Cat. Blatt. Brit. Mus. p. 202 (1868). Philippines.
39. *E. pandens*, Walker, ibidem, p. 204 (1868). Philippines.
40. *E. curta*, Walker, ibidem, p. 205 (1868). Philippines.
41. *E. pustulata*, Walker, ibidem, p. 206 (1868). Philippines.
42. *E. manillensis*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 20, p. 268 (1869). Philippines.
43. *E. cribellata*, Stål, Oefv. Vet.-Akad. Förh. Vol. 34, n° 10, p. 34 (1877). Philippines.
44. *E. rustica*, Stål, ibidem, p. 34 (1877). Philippines.
E. mutica, Kirby, Syn. Cat. Orth. Vol. 1, p. 121 (1904).
45. *E plebeia*, Stål, Oefv. Vet.-Akad. Förh. Vol. 34, n° 10, p. 34 (1877). Philippines.
46. *E. cyrtophthalma*, Stål, ibidem, p. 35 (1877). Philippines.
47. *E. tagalica*, Stål, ibidem, p. 35 (1877). Philippines.
E. trivialis, Stål, ibidem, p. 35 (1877).
E. caliginosa, Stål, ibidem, p. 35 (1877).
48. *E. lugubrina*, Stål, ibidem, p. 35 (1877). Philippines.
49. *E. meticulosa*, Stål, ibidem, p. 35 (1877). Philippines.
50. *E. ferruginosa*, Stål, ibidem, p. 35 (1877). Philippines.
51. *E. staeli*, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 277 (1903). Philippines.
E. puncticollis, Stål, Oefv. Vet.-Akad. Förh. Vol. 34, n° 10 p. 34 (1877).
52. *E. inclarata*, Walker, Cat. Blatt. Brit. Mus. p. 198 (1868). Borneo.
53. *E. quadrinotata*, Walker, ibidem, p. 209 (1868). Borneo.
54. *E. puncticollis*, Walker, ibidem, p. 74 (1868). Borneo.
55. *E. varia*, Walker, ibidem, Suppl. p. 130 (1869). Borneo.
E. varia, Shelford, Trans. Ent. Soc. Lond. p. 500, pl. 30, f. 9 (1906).
56. *E. geminata*, Brunner von Wattenwyl, Abh. Senckenb. Ges. Frankf. Vol. 24, p. 208 (1898). Borneo.
57. *E. saravacensis*, Shelford, Trans. Ent. Soc. Lond. p. 268 (1906). Borneo.
58. *E. goliath*, Shelford, ibidem, p. 269 (1906). — **Pl. 2, Fig. 6.** Borneo.
59. *E. flavomarginata*, Shelford, ibidem, p. 269 (1906). Borneo.
60. *E. ridleyi*, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 12, p. 278 (1903) Singapore.
61. *E. albina*, Saussure, Rev. Suisse Zool. Vol. 3, p. 351 (1895). Java.
62. *E. laevicollis*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 23, p. 129, pl. 10, f. 45 (1873). Java.
63. *E. deflexa*, Saussure, ibidem, p. 126, pl. 10, f. 43 (1873). Java.
64. *E. plena*, Walker, Cat. Blatt. Brit. Mus. p. 210 (1868). Borneo, Celebes, Papua.
E. fervida, Walker, ibidem, p. 211 (1868).

Australasian species :

65. *E. doleschali*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 194 (1865). Amboina.
66. *E. keraudrenii*, Le Guillou, Rev. Zool. p. 292 (1841). New Guinea.
67. *E. papua*, Saussure, Rev. Suisse Zool. Vol. 3, p. 361, pl. 9, f. 14 (1895). New Guinea.
68. *E. dilatata*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 185 (1865). Australia.
69. *E. laticollis*, Walker, Cat. Blatt. Brit. Mus. p. 203 (1868). Australia.
70. *E. pectinata*, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, vol. 20, p. 271 (1869). Australia.
71. *E. perplexa*, Tepper, Trans. Roy. Soc. S. Austral. Vol. 19, p. 156 (1895). Victoria

American species :

72. *E. crassa*, Saussure, Rev. Zool. (2), Vol. 16, p. 99 (1864). — Mexico.
E. crassa, Saussure & Zehntner, Biol. Centr.-Amer. Orth. Vol. 1, p. 62, pl. 4, f. 37 (1893).
73. *E. azteca*, Saussure, Rev. Zool. (2), Vol. 20, p. 356 (1868). — Mexico, Ecuador.
E. azteca, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol. 1, p. 95 (1893).
74. *E. mexicana*, Saussure, Rev. Zool. (2), Vol. 14, p. 228 (1862). — Mexico, Guatemala, Ecuador.
E. mexicana, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol. 1, p. 63 (1893).
75. *E. maya*, Rehn, Trans. Amer. Ent. Soc. Vol. 29, p. 3 (1903). — Nicaragua.
76. *E. sodalis*, Walker, Cat. Blatt. Brit. Mus. p. 72 (1868). — Guatemala, Guiana, Santarem.
E. conspersa, Saussure & Zehntner, Biol. Centr.-Amer. Orth. Vol. 1, p. 64, pl. 4, f. 38 (1893).
77. *E. fusca*, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 170 (1865). — Venezuela.
78. *E. arctata*, Walker, Cat. Blatt. Brit. Mus. p. 74 (1868). — British Guiana.
79. *E. substrigata*, Walker, ibidem, p. 73 (1868). — British Guiana.
E. opaca, Walker, ibidem, p. 206 (1868).
80. *E. lucifuga*, Rehn, Trans. Amer. Ent. Soc. Vol. 29, p. 271 (1903). — British Guiana.
81. *E. abortivipenna*, Rehn, ibidem, p. 273 (1903). — British Guiana.
82. *E. grisea*, De Geer, Mém. Ins. Vol. 3, p. 570, pl. 44, f. 9 (1773). — Surinam, Brazil.
E. cinerea, Thunberg, Mém. Acad. Sc. St-Pétersb. p. 277 (1826).
E. maculicollis, Serville, Hist. Nat. Ins. Orth. p. 92 (1839).
E. brasiliensis, Brunner von Wattenwyl, Nouv. Syst. des Blatt. p. 169 (1865).
83. *E. columbiana*, Saussure, Rev. Suisse Zool. Vol. 3, p. 360, pl. 9, f. 13 (1895). — New Granada.
84. *E. stigmosa*, Giglio-Tos, Boll. Mus. Zool. Anat. Torino, Vol. 13, nº 311, p. 8 (1898). — Ecuador.
85. *E. josephi*, Giglio-Tos, ibidem, p. 9 (1898). — Ecuador.
86. *E. brasiliensis*, Fabricius, Syst. Ent. p. 272 (1775). — Brazil.
87. *E. conspersa*, Burmeister, Handb. Ent. Vol. 2, p. 505 (1838). — Brazil.
88. *E. cribrosa*, Burmeister, ibidem, p. 505 (1838). — Brazil.
89. *E. crossea*, Saussure, Rev. Zool. (2), Vol. 16, p. 323 (1864). — Brazil.
E. crocea, Saussure, Mém. Hist. Nat. Mexique, Blatt. p. 133 (1864).
90. *E. agathina*, Saussure, Rev. Zool. (2), Vol. 16, p 322 (1864). — Brazil.
91. *E. heydeniana*, Saussure, ibidem, p. 323 (1864). — Brazil.
92. *E. bivittata*, Saussure; ibidem, p. 323 (1864). — Brazil.
93. *E. atriventris*, Saussure, Rev. Suisse Zool. Vol. 3, p. 357 (1895). — Brazil.
94. *E. imitatrix*, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol 1, p. 63 (1893). — Brazil.
95. *E. fallax*, Saussure & Zehntner, ibidem, p 64, pl. 4, f. 36 (1893). — Brazil.
96. *E. verticalis*, Burmeister, Handb. Ent. Vol. 2, p. 505 (1838). — Brazil.
E. socia, Stål, Freg. Eugen. Resa, Ins. p. 309 (1858).
E. bella, Saussure, Rev. Zool. (2), Vol. 16, p. 322 (1864).
E. melanosoma, Saussure, Mém. Soc. Sc. Phys. Nat. Genève, Vol. 20, p. 266 (1869).
97. *E. maculifrons*, Stål, Freg. Eugen. Resa, Ins. p. 310 (1858). — Brazil.
98. *E. proxima*, Brunner von Wattenwyl, Nouw Syst. des Blatt. p. 176 (1865). — Brazil.
99. *E. cinerascens*, Brunner von Wattenwyl, ibidem, p. 173 (1865). — Brazil.
100. *E. castanea*, Brunner von Wattenwyl, ibidem, p. 174 (1865). — Brazil.
101. *E. testacea*, Brunner von Wattenwyl, ibidem, p. 187 (1865). — Brazil.
102. *E. ferruginea*, Brunner von Wattenwyl, ibidem, p. 187 (1865). — Brazil.
103. *E. subconspersa*, Walker, Cat. Blatt. Brit. Mus. p. 71 (1868). — Brazil.
104. *E. adjuncta*, Walker, ibidem, p. 72 (1868). — Brazil.
105. *E. repanda*, Walker, ibidem, p. 73 (1868). — Brazil.
106. *E. caliginosa*, Walker, ibidem, p. 207 (1868). — Brazil.
107. *E. conferta*, Walker, ibidem, p. 207 (1868). — **Pl. 2, Fig. 8.** — Brazil.
108. *E. basistriga*, Walker, ibidem, p. 211 (1868). — Brazil (?).

109. *E. abdomen-nigrum*, De Geer. Mém. Ins. Vol. 3, p. 538, pl. 44, f. 5 (1773). Brazil, Surinam, W. Indies.
E. livida, De Geer, ibidem, p. 538, pl. 44, f. 6 (1773).
E. brevis, Brunner von Wattenwyl, Proc. Zool. Soc. Lond. p. 203, pl. 15, f. 3 (1892). — **Pl. 2, Fig. 7.**
110. *E. caizana*, Giglio-Tos, Boll. Mus. Zool. Anat. Torino. Vol. 12, nº 302, p. 10 (1897). Bolivia.
111. *E. limbalis*, Brancsik, Verh. Ver. Trencsin. Com. Vol. 23-24, p. 187 (1901). Paraguay.
112. *E. latifrons*, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol. 1, p. 66 (1893). « S. America. »
113. *E. burmeisteri*, Guérin, in Ramon de la Sagra. Hist. Cuba, Ins. p. 345 (1857). Cuba.
E. burmeisteri, Saussure, Mém. Mexique, Blatt. p. 131, pl. 2, f. 25 (1864).
114. *E. insularis*, Bolivar, Mém. Soc. Zool. Fr. Vol. 1, p. 128 (1888). Cuba.
115. *E. cubensis*, Bolivar, ibidem, p. 127 (1888). Cuba.
116. *E. caraibea*, Saussure & Zehntner, Biol. Centr. Amer. Orth. Vol. 1, p. 65 (1893). Cuba.
117. *E. sabulosa*, Walker, Cat. Blatt. Brit. Mus. p. 70 (1868). Haiti.
118. *E. microspila*, Walker, ibidem, p. 208 (1868). Haiti.

Doubtful species :

119. *E. elegans*, Eschscholtz, Entomographien, p. 84 (1822). Philippines.
120. *E. acutipennis*, Serville, Hist. Nat. Ins. Orth. p. (1839). Habitat (?).

23. Genus EUSTEGASTA, Gerstäcker

Eustegasta. Gerstäcker, Mitt. Ver. Vorpomm. Vol. 14, p. 53 (1883).
Compsoblatta. Saussure, Soc. Ent. Zurich. Vol. 6, p. 9 (1891).

Characters. — Size small. Head with the vertex freely exposed. Pronotum nitid, impunctate, posteriorly produced triangularly, sides deflexed. Tegmina and wings fully developed in both sexes, the former seriate-punctate at base; mediastinal vein of wings very long and giving off many rami to anterior margin. Supra-anal lamina (♂) surpassed by the sub-genital lamina which is asymmetrical and with two styles, in the ♀ the supra-anal lamina is variable but usually of the typical Epilamprine shape. Femora most sparsely armed with one or two spines only on the margins beneath. Tarsi very long, metatarsi biseriately spined beneath, pulvilli apical, second and third tarsal joints with a few spines.

Geographical distribution of species. — East and West Africa, Madagascar.

1. *E. poecila*, Schaum, Ber. Akad. Wiss. Berlin, p. 777 (1853). Mozambique, Nyasaland.
E. poecila, Schaum, Peters' Reise Mossamb. Zool. Vol. 5, p. 109, pl. 7, f. 2 (1862).
2. *E. obsoleta*, Kirby, Ann. Mag. Nat. Hist. (7), Vol. 5, p. 287 (1900). Nyasaland.
3. *E. micans*, Saussure & Zehntner, Rev. Suisse Zool. Vol. 3, p. 17 (1895). Zanzibar.
4. *E. buprestoides*, Walker, Cat. Blatt. Brit. Mus. p. 76 (1868). — **Pl. 2, Fig. 9.** Fernando Po, Cameroons.
5. *E. carabidina*, Walker, ibidem, p. 76 (1868). Sierra Leone.
6. *E. lucci*, Dominique. Bull. Soc. Ouest France, Vol. 10, p. 204, pl. 3, f. 14-18 (1900). French Congo.
7. *E. agrilidina*, Shelford, Ann. Mag. Nat. Hist. (7), Vol. 19, p. 47 (1907). French Congo.
8. *E. variegata*, Shelford, ibidem, p. 47 (1907). French Congo.
9. *E. splendens*, Saussure, Abh. Senckenb. Ges. Frankf. Vol. 21, p. 584 (1899). West Africa (?).
10. *E. metallica*, Saussure, Soc. Ent. Zurich, Vol 6, p. 26 (1891). Madagascar.
E. metallica, Saussure & Zehntner, in Grandidier, Hist. Nat. Madag. Orth. Vol. 1, p. 108, pl. 3, f. 37 (1895).

11. *E. amoena*, Saussure, Rev. Zool. (2), Vol. 16, p. 343 (1864). Madagascar.
E. amoena, Saussure & Zehntner, ibidem, p. 102, pl. 3, f. 36 (1895).
12. *E. venusta*, Saussure, Soc. Ent. Zurich, Vol. 6, p. 10 (1891). Madagascar.
13. *E. suava*, Saussure, ibidem, p. 26 (1891). Madagascar.
14. *E. pulchella*, Saussure, ibidem, p. 10 (1891). Madagascar.
E. pulchella, Saussure & Zehntner, ibidem, p. 106, pl. 3, f. 38 (1895).
15. *E. lepida*, Saussure & Zehntner, Rev. Suisse Zool. Vol. 3, p. 16 (1895). Madagascar.
16. *E. blanda*, Saussure & Zehntner, ibidem, p. 16 (1895). Madagascar.

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EXPLANATION OF THE PLATES

Plate 1

Fig. 1. *Phoraspis convexa*. Thunberg.
— 1*a*. — — — Posterior tarsus.
— 2. *Notolampra gibba*, Thunberg. Wing of male.
— 3. *Phlebonotus pallens*, Serville. Wing of male.
— 4. — — — Wing of female.
— 5. *Apsidopis oxyptera*, Walker.
— 6. *Compsolampra liturata*, Serville.
— 7. *Morphna maculata*, Brunner von Wattenwyl.
— 7*a*. — — — — Posterior tarsus.
— 8. *Molytria inquinata*, Stål. Male.
— 9. *Homalopteryx maindroni*, nov. sp.
— 10. — *basifera*, Walker. Posterior tarsus.
— 11. *Ataxigamia bicolor*, nov. sp.

Plate 2

Fig. 1. *Rhicnoda natatrix*, Shelford. Female.
— 2. *Aüdreia pulchra*, nov. gen. et sp. Female.
— 2*a*. — — — — Male.
— 3. *Pseudophoraspis fruhstorferi*, nov. sp.
— 4. — *nebulosa*, Burmeister. Posterior tarsus.
— 5. *Rhabdoblatta praecipua*, Walker.
— 5*a*. — — — Posterior tarsus.
— 6. *Epilampra goliath*, Shelford.
— 7. — *brevis*, Brunner von Wattenwyl. Posterior tarsus.
— 8. — *conferta*, Walker.
— 9. *Eustegasta buprestoides*, Walker.

Oxford, 15th December 1909.

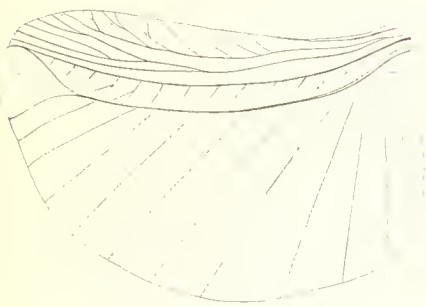
1

Phoraspis convexa

1a

Phoraspis picta.

2

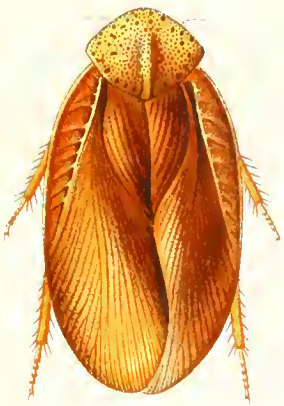


Notolampra gibba

10

Homalopteryx basifera

5

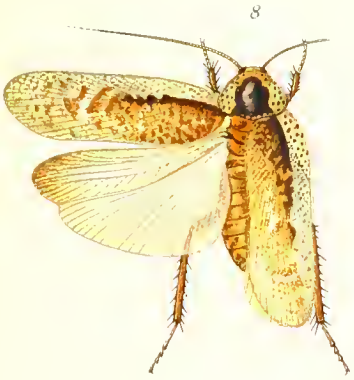


Apsidopis oxyptera

7

Morphna maculata.

8



Molytria inquinata

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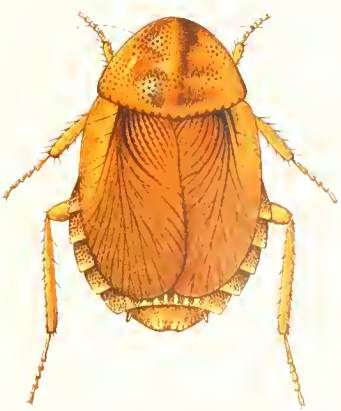

Homalopteryx maindroni

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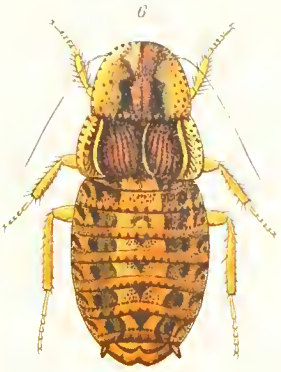


Compsolampra liturata

3

Phlebonotus pallens. ♂

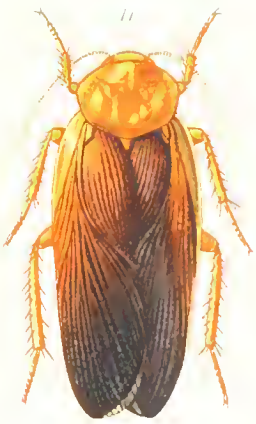
4

Phlebonotus pallens ♀

7a

Morphna maculata

11

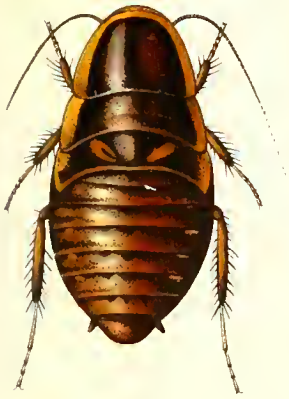


Maxigamia bicolor

FAM. BLATTIDÆ

SUBFAM. EPILAMPRINÆ.

2

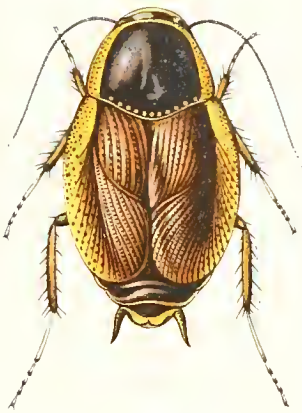


Audrcia pulchra, ♀

1

Rhicnoda natatrix.

2a



Audrcia pulchra, ♂

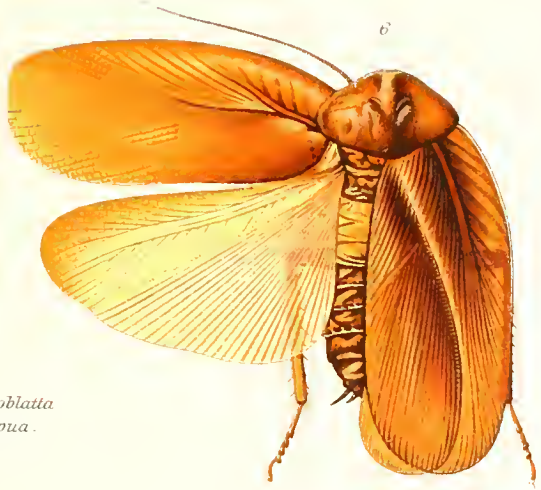
4

5

Rhabdoblatta praecipua.

Pseudophoraspis nebulosa.

6



Epilampra goliath.

7

Epilampra brevis.

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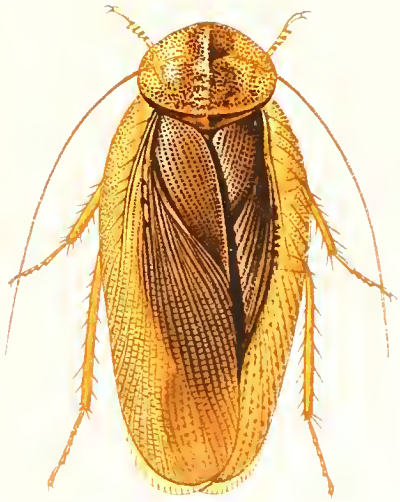
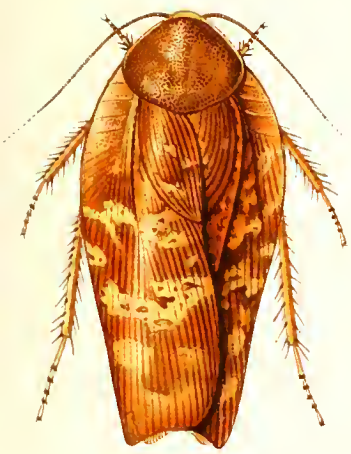


Pseudophoraspis fruhstorferi.

5a



Rhabdoblatta praecipua.

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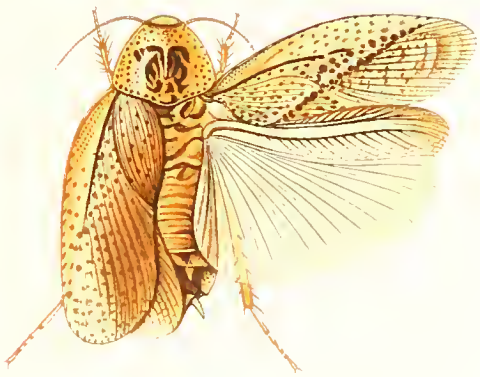

Epilampra conferta

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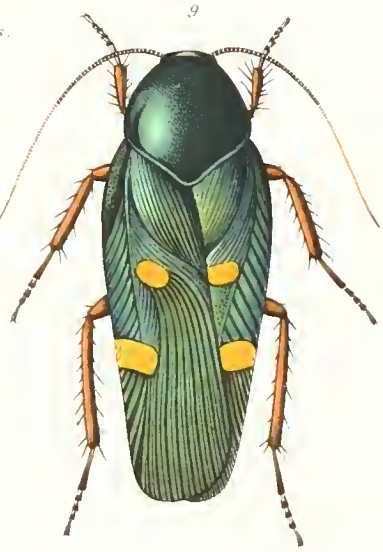

Eustegasta buprestoides.

FAM. BLATTIDÆ.

SUBFAM. EPILAMPRINÆ.